# Medical tourism in Poland: the perspective and experience of the physicians

Turystyka medyczna w Polsce: perspektywa i doświadczenia lekarzy

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Key words:	Abstract
<ul><li>medical tourism</li><li>healthcare</li><li>health services</li></ul>	Introduction: Medical tourism is gaining popularity all over the world. This term in this pape refers to patients of Polish nationality living abroad but using health services in Poland as wel as foreign patients who use health services in Poland.
<ul><li> physicians</li><li> Poland</li></ul>	<b>Objective of the paper:</b> The objective of this study was to investigate the magnitude and characteristics of medical tourism in Poland from the perspective of the physicians.
	<b>Material and methods:</b> a questionnaire-based survey was conducted among 700 physicians in Poland. The questionnaire included 29 questions regarding healthcare services in Poland
	<b>Results:</b> Completed questionnaires were obtained from 498 physicians (67.9% females average age 41.8 ±10.5 years), with a response rate of 71.1%. Clinical encounter with a Polish patient who resides on permanent basis outside the country was declared by 67.5% of respondents. There were significant differences (p <0.05) in the frequency of domestic medical tourism depending on the medical education level as well as practice type. Mos of the participants (72.3%) declared an encounter with a foreign patient who has used health services in Poland. Except the urgent health need, as factors determining domestic or international medical tourism, the doctors mentioned: quality of healthcare services, price competitiveness as well as the possibility of combining treatment with a visit to the family. <b>Conclusions:</b> Most physicians in Poland have had the opportunity to consult a patient who has used health services as part of national or international medical tourism.
SŁOWA KLUCZOWE:	STRESZCZENIE:
<ul> <li>turystyka medyczna</li> <li>opieka zdrowotna</li> <li>usługi zdrowotne</li> <li>lekarze</li> <li>Polska</li> </ul>	Wprowadzenie: Turystyka medyczna zyskuje coraz większą popularność na całym świe cie. W artykule pojęcie to odnosi się do pacjentów narodowości polskiej mieszkających za granicą, ale korzystających z usług zdrowotnych w Polsce i pacjentów obcokrajowców którzy korzystają z usług zdrowotnych w Polsce.
	<b>Cel pracy:</b> Celem pracy było zbadanie skali i charakterystyki turystyki medycznej w Polsce z perspektywy lekarzy.
	<b>Materiał i metody:</b> Badanie ankietowe przeprowadzono wśród 700 lekarzy w Polsce Kwestionariusz ankiety składał się z 29 pytań dotyczących usług zdrowotnych w Polsce.
	<ul> <li>Wyniki: Uzyskano 498 kwestionariuszy od lekarzy (67,9% kobiet; średni wiek 41,8 ±10,5 roku) (response rate 71,1%). Konsultacje udzielone polskiemu pacjentowi mieszkającemu na stałe poza granicami kraju zadeklarowało 67,5% badanych lekarzy. W odniesieniu do udzielania konsultacji takim pacjentom wystąpiły istotne różnice (p &lt;0,05) w zależności od posiadania specjalizacji oraz miejsca pracy. Większość respondentów (72,3% zadeklarowała udzielanie konsultacji pacjentowi obcokrajowcowi. Poza pilną potrzeba zdrowotną, jako czynniki determinujące krajową lub międzynarodową turystykę medyczną ankietowani lekarze wymieniali: jakość usług zdrowotnych, konkurencyjność cenową a także możliwość połączenia leczenia z wizytą u rodziny.</li> <li>Wnioski: Większość lekarzy w Polsce miała okazję udzielać konsultacji pacjentowi, który korzystał z usług zdrowotnych w ramach krajowej lub międzynarodowej turystyki medycznej</li> </ul>

# Introduction

Medical tourism refers to people traveling abroad to purchase health services (1, 2). Usually, this term referred to people who traveled from less developed countries to major medical centers in highly developed countries for health services (2). However, in recent years, more and more citizens of highly developed nations travel to less developed countries to seek medical care (1, 3). Medical tourism services include domestic medical tourism (when a person permanently residing abroad receives health services in the country of origin) as well as international medical tourism (when a foreign person uses health services in a particular country (4). The price and availability of health services are the main motivations for medical tourism (1, 5, 6). The most common health services provided within medical tourism include surgeries (especially cosmetic or plastic surgery) as well as dental tourism (6-8). Nevertheless, almost all types of health care services are available within medical tourism. Medical tourism is gaining popularity all over the world (9, 10). However, the magnitude of medical tourism in Poland is unknown.

### Objective of the paper

The objective of this study was to investigate the magnitude and characteristics of medical tourism in Poland from the perspective of the physicians.

#### Material and methods

A questionnaire-based survey was conducted between January and September 2016. We approached physicians attending the training courses (17 different courses) delivered at the School of Public Health, Centre of Postgraduate Medical Education, CMKP (Warsaw, Poland) in 2016. All 700 physicians attending these 17 courses were eligible to take the survey. The participation in the course is compulsory for each of approximately 16 200 physicians undergoing specialty in Poland. The participants represented different regions and healthcare units from all over Poland.

## **Study Questionnaire**

A self-administered questionnaire developed for the purpose of this study was the research tool. The questionnaire included 29 questions regarding healthcare services in Poland. Questions also addressed background information including gender, age, level of professional training, years of professional experience as well as medical practice characteristics.

Domestic medical tourism was assessed by the question "In your medical practice, do you have an encounter with a Polish patient who lives permanently outside the country?". International medical tourism was assessed by the question "In your medical practice, do you have an encounter with a foreign patient who has used health services in Poland?". Additionally, questions about the number of patients under medical tourism per month as well as the question about the perceived motivation for the use of medical tourism services by the patients were formulated.

Based on the medical education level, participants were assigned to either a residency group (physicians-in-training) or a specialist group (with at least one specialty completed). Depending on the self-declared place of primary employment (practice type), subjects were assigned to a hospital or an ambulatory practitioners group. Based on the type of primary employment, participants were classified as a public or private sector group.

Repeatability of the questionnaire was assessed in a group of 12 physicians, who completed the identical questionnaire twice, seven days apart. In both cases, questionnaires, as well as the form of distribution were identical. Kappa coefficients for the critical questions ranged from 0.88 to 0.96.

Participation in the study was voluntary and anonymous. The questionnaire was delivered to the participants by a member of the research team. The research protocol did not allow for the identification of an individual physician by any member of the research team. Members of the research team collected informed verbal consent from all individual participants. All procedures performed in studies involving human participants were consistent with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

#### Statistical analysis

The data was analysed with Statistica 13.3 Software (TIBCO Software Inc., Palo Alto, CA, USA). Normality of distributions of continuous variables was assessed by the Shapiro-Wilk test. The distribution of categorical variables was shown by frequencies and proportions along with 95% confidence intervals. Statistical testing to compare categorical variables was completed using the independent samples of chi-square test. Statistical inference was based on the criterion p <0.05.

# Results

Completed questionnaires were obtained from 498 physicians (67.9% females; average age 41.8  $\pm$ 10.5 years), with a response rate of 71.1%. Among the participants, 49.8% were physicians-in-training, and 50.2% were specialists (Table 1). The average years of professional experience were 13.6  $\pm$ 10.5 years. Most of the respondents (54.3%) declared hospital as a place of primary employment. More than half of respondents (58.1%) were employed by the public health care provider (Table 1).

#### Table 1. Subjects characteristics (n = 498).

	n (%)			
Age, mean ±SD, min-max	41.8 ±10.5 (28-68)			
Gender				
Male	160 (32.1)			
Female	338 (67.9)			
Medical education level				
Residency (physician-in-training)	248 (49.8)			
Specialist	250 (50.2)			
Years of professional experience, mean ±SD, min-max	13.6 ±10.5 (1-43)			
Place of primary employment (n = 348)				
Hospital	189 (54.3%)			
Ambulatory	159 (45.7%)			
Type of primary employment (n = 473)				
Public health care provider	275 (58.1%)			
Private health care provider	198 (41.9%)			

In your medical practice, do you have an encounter with a Polish patient who lives permanently outside the country? (n = 498)				
Variable	% (95% CI)	р		
Overall	67.5 (63.2-71.4)			
Gender				
Male	70.6 (63.2-77.1)	0.3		
Female	66.0 (60.8-70.8)	_		
Medical education level				
Residency	58.5 (52.3-64.4)	<0.001		
Specialist	76.4 (70.8-81.2)			
Place of primary employment				
Hospital	70.4 (63.5-76.4)	<0.001		
Ambulatory	87.4 (81.4-91.7)	-		
Type of primary employment				
Public health care provider	60.0 (54.1-65.6)	<0.001		
Private health care provider	79.8 (73.7-84.8)			
Type of health services provided to Polish patient who lives permanently abroad (n = 336)				
Planned visit	21.3 (17.2-26.0)	0.001		
Urgent visit	67.4 (62.2-72.2)			
Both	11.3 (8.4-15.2)			
Number of Polish patients under medical tourism per month median (min-max)	2 (1-50)			
95% CI – 95-percent confidence in	terval; p-results of Chi-	square tes		

Table 2. Clinical encounter with a Polish patient who lives permanently outside the country (n = 498).

Clinical encounter with a Polish patient who lives permanently outside the country was declared by 67.5% of respondents (Table 2). Physicians with at least one specialty completed, compared to physicians-in-training declared encounter with a Polish patient who lives abroad more often (76.4% vs. 58.5%; p <0.001). Physicians who worked in ambulatory (87.4%) as well as those who worked in private entities (79.8%) more often declared encounter with domestic medical tourism, when compared to those employed in public entities (60.0%; p <0.001) or working in a hospital (70.4%; p <0.001). According to the participants, most of the health services provided to Polish patient who lives permanently abroad resulted from emergency Table 3. Clinical encounter with a foreign patient who has used health services in Poland.

In your medical practice, do you have an encounter with a foreign patient who has used health services in Poland?				
Variable	% (95% CI)	р		
Overall	72.3 (68.2-76.0)			
Gender				
Male	72.5 (65.1-78.8)	0.9		
Female	72.2 (67.2-76.7)			
Medical education level				
Residency	72.2 (66.3-77.4)	0.9		
Specialist	72.4 (66.6-77.6)			
Type of primary employment				
Public institution	74.6 (69.1-79.3)	0.6		
Private institution	72.2 (65.6-78.0)			
Type of health services provided to foreign patient (n = 360)				

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Planned visit	21.0 (17.1-25.5)	0.001
Urgent visit	73.4 (68.6-77.7)	
Both	5.6 (3.7-8.5)	
Number of foreign patients under medical tourism per month median (min-max)	1 (1-21)	

95% CI - 95-percent confidence interval; p-results of Chi-square test

needs (78,9%). Other mentioned factors determining medical tourism were: possibility of combining treatment with a visit to the family (54,8%), higher guality of services offered in Poland than in the country of residence (33,3%) and price competitiveness (26,8%) (Figure 1).

Most of the participants (72.3%) declared an encounter with a foreign patient who has used health services in Poland (Table 3). There were no significant differences (p >0.05) in the frequency of health care services provided to foreign patients depending on the gender, medical education level, as well as the type of primary employment. Urgent visit (73.4%) was the main type of health services provided to the foreign patient. In addition to urgent health need

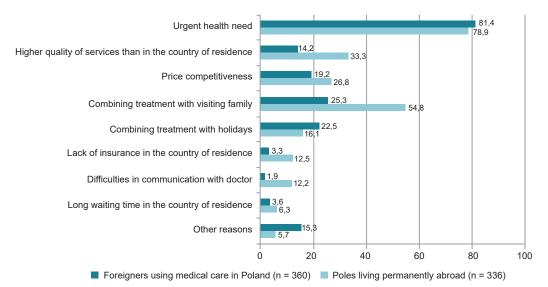


Figure 1. Reasons for medical tourism in the opinion of physicians operating in Poland.

(81,4%), as factors determining domestic or international medical tourism, the doctors mentioned the following: quality of healthcare services provided in Poland (14,2%), price competitiveness (19,2%) as well as the possibility of combining treatment with a visit to the family (25,3%) (Figure 1).

# Discussion

To the authors' best knowledge, this study is the first to investigate the magnitude and characteristics of medical tourism in Poland from the perspective of the physicians. We observed that most of the physicians in Poland have had clinical encounter with the patient who used health services within domestic or international medical tourism. Polish citizens living permanently outside the country most often used the services of specialists as part of outpatient care provided by private entities. In the opinion of doctors, foreign patients who receive medical care in Poland also often use services provided by hospitals as outpatient clinics, regardless of the ownership structure. In the majority of cases, health services provided to Poles permanently living abroad or foreigners coming to Poland resulted from urgent health needs.

In 2011, approximately 320,000 foreign patients visited Poland within medical tourism (11). Moreover, it is estimated that Poland may become one of the three most promising treatment destinations for foreign patients in Europe (12). In our study, the participants more often declared a clinical encounter with the foreign patients who use health services in Poland, than with Polish patient who lives permanently outside the country. It may suggest that the scale of international tourism in Poland is higher compared to domestics tourism. Most of the Poles who emigrated from the country chose Western European countries, where the level of medical care is often higher than in Poland. However, the price competitiveness was one of the major factors related to the use of health services in Poland, which may suggest that Poland offers cost-saving treatment.

Medical tourism poses a challenge for the health care system (1, 2). The possibility of developing medical tourism requires the provision of an adequate number of the medical staff that will ensure the basic health needs of society, as well as being able to get involved in the services offered under medical tourism (5). In many countries, the healthcare system requires the transition to adapt to new challenges, including medical tourism (2, 6). Several strategies to address the non-clinical challenges and conflicts in doctor-patient interaction in the sector of medical tourism have already been developed (13), but due to cultural differences, their application is limited. Nevertheless, all possible changes should take into consideration potentially negative impact of medical tourism on growing unequal access to the health care services (14). This study has several limitations. First, our study was based on the individual beliefs and attitudes of physicians towards medical tourism. We did not confront the opinion reported by doctors with the documentation about the type of service users present in medical facilities where the respondents worked. Secondly, we do not know what kind of health services were provided most often. The information on medical procedures performed as part of medical tourism could provide more detailed characteristics of this phenomenon in Poland.

### Conclusions

Most of physicians in Poland have already had a clinical encounter with the patient who used health services within domestic or international medical tourism. In the majority of cases, health services provided to Poles permanently living abroad or foreigners coming to Poland resulted from urgent health needs. Other reasons were quality of healthcare services provided in Poland, price competitiveness, and the possibility of combining treatment with a visit to the family. More studies are needed to assess the magnitude of medical tourism in Poland from the perspective of service users.

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